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Case Report

Basal cell carcinoma excision with bilobed flap nasal reconstruction

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ABSTRACT

Background: Basal cell carcinoma (BCC) is a slow growing, locally destructive, malignant tumor of the skin. It is derived from non- keratinizing cells that originate from the basal layer of the epidermis. After excision nasolabial flap, median forehead dorsal nasal flap, glabellar flaps, bilobed flaps, cheek and craniofacial flaps are used for nasal reconstruction. The Zitelli's bilobed flap is one of the most useful flaps for nasal reconstruction. It is a simple double transposition flap and is designed to move more skin, without deformation.

Case Reporter: A 60-years old male patient reported to our department with complains of circular raised and reddish discoloration lesion on the left side of the nose. Surgical excision and reconstruction of defect using bilobed flap was planned under general anaesthesia. The flap was designed in such a manner that the flap could be turned over the defect on the ala of the nose and closure of the donor site could be done primarily without deformity. Surgical excision of the nose lesion was done and reconstruction was performed using bilobed flap. The patient has been followed up for 1year with no evidence of recurrence.

Conclusion: The bilobed flap is a versatile and reliable flap for coverage of small skin and soft tissue defects of the lower third of the nose. It gives a successful outcome if it is designed well and performed properly. In this case it helped us to achieve a defect free cosmetically fine nose after excision of basal cell carcinoma nose.

1. Introduction

The most common site of facial skin cancer is the nose (25.5%), because of its cumulative exposure to sunlight.[1–3] When dealing with primary non-melanoma nasal skin cancers, the most important goal is to obtain a tumor-free patient. Several studies have outlined the surgical parameters necessary for the excision of primary nonmelanoma skin cancers.[4–6] Well-defined primary basal cell carcinomas (BCCs) less than 2 cm in diameter should be excised with 4.0-mm margins to obtain a 95% cure rate.[5] Primary squamous cell carcinomas (SCCs) require 4.0-mm margins for low-risk tumors and 6.0mm margins for high-risk tumors (≥2.0 cm; >II histological grade; nose, lip, scalp, ears, eyelids; invasion into the subcutaneous tissue) to obtain a 95% cure rate.[4,6]

Basal cell carcinoma (BCC) is a slow growing, locally destructive, malignant tumor of the skin. It is derived from non- keratinizing cells that originate from the basal layer of the epidermis and was first described in 1824 by Jacob.[7] Although basal cell carcinoma is a malignant neoplasm, it rarely metastasizes. The incidence of metastatic basal cell carcinoma is estimated to be less than 0.1%. After excision nasolabial flap, median forehead dorsal nasal flap, glabellar flaps, bilobed flaps, cheek and craniofacial flaps are used for

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nasal reconstruction.[8]

The Zitelli's bilobed flap is one of the most useful flaps for nasal reconstruction. It is a simple double transposition flap and is designed to move more skin, without deformation, over a larger distance than would be possible with a single transposition flap in the same location. This is the repair of choice for defects located between 0.5 and 1.5 cm of the distal and lateral aspect of the nose, particularly defects involving the lateral tip, supratip, or tissue near the tip.[9]

2. Case Report

A 60 year old male patient reported to ENT department with complains of circular raised and reddish discoloration lesion on the left side of the nose, the size of lesion has been slow growing and has reached the current state in a span of 1 year. There was no pain associated with it, but was aesthetically concerned with the lesion .Surgical excision and reconstruction of defect using bilobed flap was planned under general anaesthesia.

Standard Markings for the bilobed flap design were done and excision of the lesion was carried out 5 mm from the margin of the tumor. The excised lesion was sent for histopathological examination. Histopathological report confirm it to be Basal cell carcinoma.

Fig. 1: Patient nose with marking of lesion

Reconstruction was performed using bilobed flap. The flap was designed in such a manner that the flap could be turned over the defect on the ala of the nose and closure of the donor site could be done primarily without deformity.

The area surrounding the Ala of nose was infiltrated with 2% lignocaine with 1:200000 adrenaline. The flap

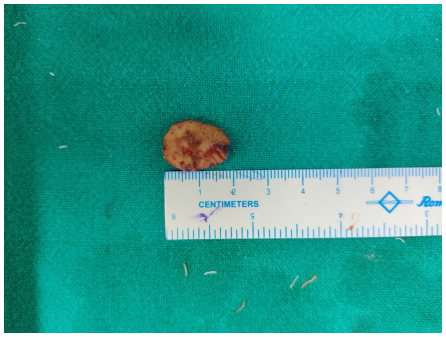

Fig. 2: Excised nose BCC (Basal Cell Carcinoma) with 5mm margin

Fig. 3: Bilobed flap reconstruction of nose

Fig. 4: Patient image with no recurrence after 6 month follow up

was raised based on the size of the defect to be covered, the central lobe of the flap was rotated into the primary defect and the secondary lobe was rotated and used to close primary donor site and secondary donor site was closed primarily by direct suture.

The patient has been followed up for 1year with no evidence of recurrence. Patient nose is cosmetically fine and patient has no fresh complaint.

3. Discussion

Aesthetic and functional reconstruction of full-thickness soft-tissue nasal defects involves many options. Although the topographic nasal sub unit principle of Burget and Menick [10] is important in preoperative analysis and planning of the reconstruction, other aesthetic considerations such as skin texture, color, and contour are also crucial. A balance must be achieved among these various factors and the patient's medical condition, adjacent tissue availability, skin history, and expectations. [11]

A variety of reconstruction options are suggested for partial-thickness defects of the alar lobules and nasal tip, including primary repair, skin grafts or local flaps such asbilobed flap, nasolabial flap or forehead flap. [12]

A patient's medical history can significantly affect the reconstruction plan, by forcing all treatment into a monitored operating room environment. Diabetics and smokers should be warned about potential skin necrosis, and a different plan of reconstruction or the delay of flaps may be necessary in these patients. [13] On the lower third of the nose, where the skin is least mobile, the bilobed flap allows the surgical site to be filled with nearby skin and matched for color and texture; it then allows for repair of the secondary defect with another well-matched flap from a nearby donor site. The initial lobe should be the same size as the defect, but the secondary lobe may be slightly smaller to allow for donor site closure with minimal distortion. The angle of transposition is approximately 45–50◦ for each lobe. The defect, flap, and donor site should be widely undermined in the periosteal and perichondrial planes to facilitate transposition without distortion of the nasal tissue and to reduce pin cushioning. An adequate Burow's triangle must be removed from the pivot point to eliminate bunching and dog-ear formation. It can be designed with its base medial or lateral. Flaps based laterally on the side wall of the nose are most useful for reconstruction of defects near the nasal tip, whereas medially based flaps are more useful for repair of alar defects. Bilobed flaps are the best for small defects in the tip or ala. [14,15]

4. Conclusion

The bilobed flap is a versatile and reliable flap for coverage of small skin and soft tissue defects of the lower third of the nose. It gives a successful outcome if it is designed well and performed properly. In this case it helped us to achieve a defect free cosmetically fine nose after excision of basal cell carcinoma nose.

5. Source of Funding

None.

6. Conflict of Interest

None.

References

1. Netscher DT, Spira M. Basal cell carcinoma: an overview of tumor biology and treatment. *Plast Reconstr Surg*. 2004;113(5):74–94. doi:10.1097/01.PRS.0000113025.69154.D1.
2. Ge NN, Mcguire JF, Dyson S, Chark D. Nonmelanoma skin cancer of the head and neck II: surgical treatment and reconstruction. *Am J Otolaryngol*. 2009;30(3):181–92.
3. Boyd AS, Shyr Y, King LE. Basal cell carcinoma in young women: an evaluation of the association of tanning bed use and smoking. *J Am Acad Dermatol*. 2002;46(5):706–9.
4. Brodland DG, Zitelli JA. Surgicalmargins for excision of primary cutaneous squamous cell carcinoma. *J Am Acad Dermatol*. 1992;27(2 I):241–8.
5. Wolf DJ, Zitelli JA. Surgical margins for basal cell carcinoma. *Arch Dermatol*. 1987;123(3):340–4.
6. Huang CC, Boyce SM. Surgicalmargins of excision for basal cell carcinoma and squamous cell carcinoma. *Semin Cutan Med Surg*. 2004;23(3):167–73.
7. Samarasinghe V, Madan V, Lear JT. Focus on basal cell carcinoma. *J Skin Cancer*. 2011;p. 328615. doi:10.1155/2011/328615.
8. Mcgregor IA, Mcgregor F. The nose. In: Cancer of the face and mouth: pathology and management for surgeons. New York: Churchill livingstone; 1986. p. 263–5.
9. Zitelli JA. The bilobed flap for nasal reconstruction. *Arch Dermatol*. 1989;125(7):957–9.
10. Burget GC, Menick FJ. Aesthetic Reconstruction of the Nose. 1st Edn. Mosby, St. Louis,Mo, USA;.
11. Rustemeyer J, unther L, Bremerich A. Complications after nasal skin repair with local flaps and full-thickness skin grafts and implications of patients' contentment. *Oral and Maxillofacial Surg*. 2009;13(1):15–9.
12. Thornton JF, Griffin JR, Constantine FC. Nasal Reconstruction: An Overview and Nuances. *Semin Plast Surg*. 2008;22(4):257–68. doi:10.1055/s-0028-1095885.
13. Hoasjoe DK, Stucker FJ, Aarstad RE. Aesthetic and anatomic considerations for nasal reconstruction. *Facial Plast Surg*. 1994;10(4):317–21.
14. Belmahi A, Mazouz SE, Gharib NE, Bencheikh R, Ouazzani S. The bilobed flap: a very efficient method in aesthetic reconstruction of small skin defects at the alar and tip regions of the nose. *Ann Chir Plast Esthet*. 2003;48(4):211–5.
15. Cho M, Kim DW. Modification of the Zitelli bilobed flap. A comparison of flap dynamics in human cadavers. *Arch Facial Plast Surg*. 2006;8(6):404–9.

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